PATENT CLAIMS

1. Method for generating data that can be used to assess the cognitive or sen-
    sorimotor capabilities or capacities of a test person, **characterized in that**
    measuring samples, generated using an available procedure, that represent ac-
    tivities in the brain of a test person are registered during time frames synchro-
    nized with a sequence of test situations in which the test person can be placed,
    in that from the registered measuring samples relevant activity changes are
    traced and localized in the brain of the test person, in that from the relevant ac-
    tivity changes a variety of groups are formed, whereby each group is assigned
    to a different, predetermined brain region, in that a relationship is determined
    among the groups of relevant changes assigned to various brain regions, and
    in that data describing the relationships are prepared for assessment.

2. Method according to claim 1, **characterized in that** the tracing and localization
    of relevant activity changes, the formation of groups and the drawing up of rela-
    tionship data are carried out using the measuring samples registered in all the
    time frames, or per individual time frame, or per group of time frames.

3. Method according to claim 1 or 2, **characterized in that** the time frames for
    registering measuring samples are synchronized with the succession of test
    situations in such a manner that a time frame begins with the start of each test
    situation of the sequence of test situations.

4. Method according to claim 3, **characterized in that** each time frame has a
    length of between 0.1 and 3000 seconds.

5.   Method according to any of the claims 1 to 4, **characterized in that** the test situations are problems presented visually or acoustically which are solvable using specific experiences.

6.   Method according to any of the claims 1 to 4, **characterized in that** the test situations are images or other situations directed at a possible experience of the test person.

7.   Method according to any of the claims 1 to 6, **characterized in that** the relevant activity changes are traced by means of filtering and/or a reliability test.

8.   Method according to any of the claims 1 to 6, **characterized in that** for the formation of groups of relevant activity changes the brain region of the frontal, occipital and parietal lobes and the brain region of the temporal lobe, the hippocampus, and the limbic system are predetermined.

9.   Method according to any of the claims 1 to 8, **characterized in that** in order to draw up the relationship data the relative number of relevant activity changes in the groups are determined.

10. Method according to any of the claims 1 to 9, **characterized in that** for the preparation for assessment the data describing the relationship, together with the experimentally drawn up areas for assessment, comparison data and/or threshold values are presented visually or acoustically.

11. Method according to any of the claims 1 to 10, **characterized in that** the measuring samples are collected by magnetoencephalography or electroe-

ncephalography and that the relevant activity changes are sources in the frequency range of 4 to 80 Hz with a goodness of fit of more than 90%.

12. Method according to claim 11, **characterized in that** the measuring samples are recorded with a frequency of 10 to 5000 Hz.

13. Data processing system for generating data that can be used to assess the cognitive or sensorimotor capabilities or capacities of a test person, **characterized in that** the system has an interface for the input of measuring samples collected by an available measuring technique that represent activities in the brain of the test person, as well as means with the aid of which the test person can be placed in a series of different test situations, means for the synchronization of the sequence of test situations with time frames in which measuring samples are registered, means to trace and localize relevant activity changes from the registered measuring samples, means to form a variety of groups of relevant activity changes on the basis of the localities of the activity changes and on the basis of a variety of different, predetermined brain regions, means to calculate relationships among the groups of activity changes and means to prepare the data describing the relationship for assessment.

14. Data processing system according to claim 13, **characterized in that** it is a means for tracing and localizing relevant activity changes, a means for performing a filtering and/or a means for performing a reliability test.

15. Data processing system according to either claim 13 or 14, **characterized in that** it further comprises a display screen or a loudspeaker for the visual or acoustic presentation of the succession of test situations and/or for the preparation of the data reflecting the group relationships for assessment.

16. Storage medium containing a program code which causes a computer into which the storage medium is introduced to carry out a procedure according to one of the claims 1 to 12.

17. Use of the method according to any of the claims 1 to 12 for the assessment of test persons with regard to their ability to make use of their experience.

18. Use of the method according to any of the claims 1 to 12 as a lie detector.